

Application Serial No. 101/083,443
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Reply to Office Action dated October 6, 2003

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REMARKS

This is in response to the Office Action mailed October 6, 2003. Accordingly, a response is due on or before January 6, 2004. Claims 1-20 are pending. Applicant has amended claims 1, 12 and 15.

Claim rejection under 35 U.S.C. §112.

The Examiner rejected claim 15 under 35 U.S.C. §112 because the limitation "the thermostat" had insufficient antecedent basis. Applicant has amended claim 15 to provide such antecedent basis. Applicant respectfully requests that the rejection be reconsidered and withdrawn.

Claim rejection under 35 U.S.C. §103.

Claims 1-20 were rejected under 35 U.S.C. §103 as being unpatentable over Johnson (U.S.P.N. 4,727,854) and in view of Cowan (U.S.P.N. 3,805,763). The Examiner states that Johnson teaches that "hot spots" are a concern in a radiant heater of the type including a burner tube and a reflector. The Examiner states that Johnson discloses a heater that solves this problem with a reverse peak 69. Based on this, the Examiner concludes that Johnson '854 teaches the problem of the hot spot identified in the Applicant's disclosure. The Examiner recognizes that Johnson '854 does not disclose the use of a fan positioned adjacent the hot spot for cooling the external surfaces of the conduit.

The Examiner states that Cowan teaches a radiant heating system in the same field of endeavor as Johnson '854 and that Cowan includes a fan assembly which is positioned to direct cooling air into the outer casing of a radiant heating tube. The Examiner states this structure is equivalent to a fan positioned adjacent the hot spot as recited by the Applicant.

Applicant has amended claims 1 and 12 to further define over the combination of Johnson and Cowan. Applicant submits that independent claim 18 distinguishes over Johnson and Cowan and therefore, traverses the rejection.

Applicant submits that Johnson does not recognize a hot spot in the conduit as suggested by the Examiner. Rather, Applicant submits that Johnson recognizes that there may be a hot spot at the peak of the reflector due to the reflector's positioning relative to the conduit.

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Applicant believes that this is clearly stated in Johnson '854. In particular, Johnson '854, at column 5 unambiguously states "the reflector 24 of Fig. 3 further comprises a single thickness inner shell 68 which is similar to a standard reflector and which is bent with a reverse peak 69 at the top to minimize the tendency to produce a hot spot immediately above the emitter tube 22." See Johnson '854, column 5, lines 31-36 (emphasis added). Thus, Johnson '854 does not disclose a hot spot in the conduit as set forth in Applicant's claims. As recognized by the Examiner, Cowan teaches to direct a cooling airflow over the entire conduit assembly. Applicant submits that the Examiner's characterization that this structure is equivalent to a fan position adjacent a hot spot is erroneous. In particular, Cowan teaches that the entire structure needs to be cooled. Applicant's claims set forth that the cooling fan is positioned over one particular location which would be counterproductive to the goal of Cowan insofar as positioning the fan adjacent a single spot would decrease the cooling efficiencies associated with the remaining portions of the conduit. Therefore, Applicant submits that Cowan actually teaches away from the claimed invention.

Applicant submits that amended claim 1 is patentably distinct from the Johnson and Cowan references. Applicant respectfully requests that the rejection of claim 1 be reconsidered and withdrawn. Claims 2-11 include additional claim elements which further distinguish over Johnson '854 and Cowan. Applicant therefore respectfully requests that the objection of claims 2-11 be reconsidered and withdrawn.

Applicant respectfully submits that the rejection to claim 12 has been overcome and requests that the Examiner reconsider and withdraw the rejection.

Claims 13-17 depend from claim 12 and add additional elements which further distinguish the Johnson '854 and Cowan references. Applicant respectfully submits that the rejection to claims 13-17 be reconsidered and withdrawn.

The Applicant respectfully traverses the rejection of claim 18. Claim 18 recites the location and the positioning of cooling of a hot spot on a conduit. The Johnson reference does not disclose the problem of a hot spot on a conduit. Further, Cowan teaches away from directing a cooling area at a specific location on the conduit and rather teaches that the conduit should be

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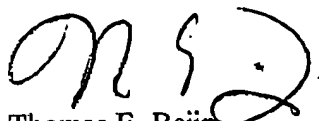
cooled in its entirety. Applicant respectfully requests that the rejection of claim 18 be reconsidered and withdrawn.

Claims 19 and 20 depend on claim 18 and add additional patentable features not found in Johnson '854 and Cowan. Applicant respectfully requests that the rejection of these claims be reconsidered and withdrawn.

In conclusion, Applicant submits that all the rejections of the claims have been overcome, either by amendment or argument. Applicant respectfully requests that all rejections be reconsidered and withdrawn. If the Examiner believes that a telephone conference with the Applicant would be helpful in further prosecution of this matter, the Examiner is encouraged to contact the undersigned directly.

Respectfully submitted,

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